No: 2nd and Final Bill . W.O NO: EE/ELE/RRN/W.O/32/22-23 Dated: 12/05/2022.
Job code: 06-22-000003

M. A. R. 57 (Rule 116) **No. E**

Measurement Book

37

Serial No. .....

Name of work providing LED Street light fitting with Connected accessories in ward no -16, 17, From ..... To ..... from head no

Name of Contractor of nature of Agency. & releasing of existing Sodium Vapour lights 12225 16, 1737

Date of commencement of work Refixing at h&rd no 73 and 129 under RR Nagar Zone.

Date	Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Dimensions: Depth	Contents	Reference to last Measurement
1	2	3	4	5	6	7	8
1.	Supply of LED Street light luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp Compartment comprising of Anti glare clear diffuser with Injection moulded polycarbonate material delivering Superior light output, Rated life burning Hrs 5000 hr @ lumen maintenance of 70%. maximum light intensity should be between. 60 degrees to 70 degrees. CCT 7550K. IP 66 optical and electrical compartments, impact resistance of Complete luminaire 7 Kgs. power factor 0.9 with mains, surge protection - Min 5 kv along with over voltage/overload, short circuit/miss wiring protection, Compatable for pole mounting with order dia of 60mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application, Complaisre to IS 10322/IEC 60598. LM 79 & LM 80 Adherence with RoHS, UL approved MCPCB. Top access Street light with Sigh Screw to ensure ease of						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	maintenance at the Sight Site location. With minimized minimal tools. LED light fixture with IP system. Power Consumption. LED efficiency 7/130 lm/w nominal CRI > 75. Luminaire manufacturer should have in house facility accredited by NABL/CPRI & any government Certified Agency & Design & Development facility Certified by Iso9001:2008, Housing with Supplier Logo mark/name shall be Engraved/Embossing on the die Cast housing/Body at Warranty of 2 years against any manufacturing defect working under Standard electrical Conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/Lumileds/Osram make LED Street light 70 watts.						
	Previously paid.						
	Qty				⇒NO⇒ 108.00 X 7340.00 ⇒ 7,92,720.00.		
	207.00 Rs-1519380.00.						

M. A. R. 57 (Rule 116) **No. E**

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency..... 12226

Date of commencement of work.....

Date	Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Dimensions: Depth	Contents	Reference to last Measurement
1	2	3	4	5	6	7	8
2.	LED Street light 90 watts. Previously Paid. Qty: 1152 Rs 103	NO ⇒	300	9000.0	⇒ 27,000.00		
3.	LED Street light 120 watts. Previously Paid. Qty: 1449 Rs: 4041000.	NO ⇒	181.0	9000.0	⇒ 162,9000.00		
4.	Supply of LED flood light luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp Compartment comprising of anti glare clear diffuser with Injection moulded Poly Carbonate glass material delivering Superior light output, Rated life Exceeding 50000hr @ lumen maintenance of 70% CCT 5500K: IP 66 optical and electrical compartment & Impact resistance of Complete luminaire & IK08.						

Uc Dar 12/8

Uc Dar 8/8

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Power factor 70.9 with mains, Surge optical and electrical Compaltment & Impact resistance of complete Luminaire 7 FK08 Power factor 70.9 with mains, Surge protection 4 Min 4 KV Along with over voltage/ Overload, Short circuit/miss-wiring protection. compatible for pole mounting with outer dia. of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60HZ application, Compliance to IS 10322/IEC 60958 LM 79 & LM-80 Adherence with ROHS. UL Approved MCPCB Top access street light fixture with W System power consumption. LED efficiency 7 130 lm/w nominal CRI 7 75. Luminaire manufacture should have in-house facility accredited by NABL/CPRI and any government certified Agency and Designed. Development facility Certified by ISO 9001:2008. Housing with Supplies word mark/Name shall be engraved/Embossing on the die Cast housing/Body part warranty of 2 years against any manufacturing defect working under Standard electrical conditions as mentioned above should be given by LED manufacturer's. Cree/Nichia/Lumileds or equivalent LED source. LED Flood light 180W					
	Previously paid	NO⇒ 107.00 x 17800.00 ⇒ 1904600.00					
	Qty: 56 Rs: 996800.00						

M. A. R. 57 (Rule 116) **No. E**

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency..... 12227

Date of commencement of work.....

Date	Full description, etc, of work	Number	Dimensions			Contents	Reference to last Measurement
			Length	Breadth	Depth		
1	2	3	4	5	6	7	8
5.	Fixing halogen/metal halide/SVL/I/LED floodlight fitting over existing pole/wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires. Previously Paid. Qty: 56 Rs = 10080.00	Each⇒	107.00	× 180.0	⇒ 19260.00		
6.	Supplying and fixing ... mm dia class A GI Pipe bracket upto 27 meters long terminated with a reducing collar of 40×25mm to which extra pipe of 175mm length is fixed for fixing MV/SV/MFL/FTL Streetlight fitting of all capacities on rail/RCC/wall/tubular Pole using suitable clamps, bolts, nuts and wiring using suitable capacity wires, using 32mm dia. GI. Pipe Previously Paid. Qty: 515. Rs: 548475.00	Each⇒	1885.0	× 1065.00	⇒ 2907525.00		

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
7	Fabricating, Supplying and erecting Swaged tubular pole of height ... Mtrs. having three sections and providing two coats of red oxide paint and finished with two coats of enamelled paint of approved quality and colour and MS base plate of suitable size welded at the bottom of the pole (as per Is) and 40 mm dia GI/flexible PVC pipe of 1 mtr length fitted to the heavy gauge polycarbonate control box including 5 way connector of size 167X125X82mm for 7.5M pole 200X160X82 mm for remaining length of pole with front opening cover with locking arrangements and suitable capacity MCB/DP switch, the pole shall be erected in Cement Concrete work (1:2:4) including excavation and refilling of planet depth of pole to the ground level and the coping of slab. be up to 0.6M above ground level as per Is 2713-7. Erection of heavy duty pole on footpath/median (4-11 DP MT (5MT-Ht 165.1 mm dia) 4.85mm thick x 2M-Hm) 139.7 mm dia 4.50mm thick x 2M-Ht 114.3mm dia 3.65mm thick) as per-Is 410 SP 32.						
		Each ⇒ 80.0 X 14400.0 ⇒ 11,52,000.00 ✓					

M. A. R. 57 (Rule 116) **No. E**

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency..... 12228

Date of commencement of work.....

Date	Full description, etc, of work	Number	Dimensions			Contents	Reference to last Measurement
			Length	Breadth	Depth		
1	2	3	4	5	6	7	8
8.	Supplying and fixing telescopic MS bracket fabricated by using 6 Mtr. length 4 dia telescopic MS pipe with 2" dia 1.5 m. long MS bracket and are welded with suitable angle, using 6mm thick MS sheet, grip, bolts & nuts as required suitable for 9 to 12 Mtrs. MS tubular pole with necessary two coats of Painting with all other accessories, Single bracket 1.5 Mtr. length						
	Each ⇒		60.0	× 1350.0	⇒ 81000.00		
9.	Double bracket 2 × 1.5 Mtr length.						
	Each ⇒		20.0	× 1980.0	⇒ 39600.0		
10	Wiring for lighting Power circuit using one of PVC insulated 1100V grade Stranded Aluminium wire Single core in open or concealed system of wiring 4 Sq mm.						
	Mtrs ⇒		800	× 18.0	⇒ 14400.00		

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
11.	Supplying of 1.1KV AYUG cable XLPE (or) Heat resistance PVC insulated PVC extended Inner sheath armoured UG LT Cable as per Is-1554 (Part-1) @ Is-7098 Part-1 Armouring Strip thickness in average 45% and resistivity 1 ohms/kms (Max) as per Is-3975.5) 3.5 core 25 Sqmm.						
			Mtr ⇒	840.0	× 216.0 ⇒	181440.00	
12	4 Core 16 Sqmm		Mtr ⇒	200.0	× 180.0 ⇒	36000.00	
13	Labour Charges for laying of 1.1KV Class UG Cable in existing trench GI Pipe/Stonewale pipe/on wall/on Pole as required. on wall/Structure 6.5.2) 25Sqmm to 75Sqmm.						
			Mtr ⇒	840.0	× 18.0 ⇒	15210.00	
14.	Labour charges for laying of 1.1KV Class UG Cable in existing trench. GI Pipe/stonewale pipe/on wall/on poles as required. In existing trench/duct. 6Sqmm to 16Sqmm						
			Mtr ⇒	200.0	× 18.0 ⇒	3600.00	

M. A. R. 57 (Rule 116) **No. E**

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency..... 12229

Date of commencement of work.....

Date	Full description, etc, of work	Number	Dimensions			Contents	Reference to last Measurement
			Length	Breadth	Depth		
1	2	3	4	5	6	7	8
15.	Digging of trench of 0.6m deep x 0.5mtr wide refilling the trench to the required ground level and consolidating etc. complete. In soil (hard)	Mtr⇒	180.00	x 108.0	⇒ 19440.00		
16.	supplying and fixing of solar lux level street light control switch single phase including suitable capacity contactor. 5Kw.	Each⇒	105.0	x 8100.0	⇒ 8,50,500.00		
17	supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and c' type curve, indicator. ON/OFF, energy cross-3 with short circuit breaking capacity of 10K and complete wiring as required confirmas to IEC 60898.9) 50.63 Amps SP	Each⇒	8100	x 720.0	⇒ 1,51,200.00		

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
18.	Supply and installation/fixing/ provision of outdoor type Thermoplastic Modul Panel enclosure with transparent poly carbonate Lid. Shock Proof IP65 (Weather proof), dust Proof, dust Proof, water Proof corrosion Proof having internally Embedded gasket on bolt lid and flap suitable to fix single phase/Three phase energy Meter in suitable base plate and having a provision for Fuse MCB cutout with suitable transparent hinged flap opening for operating MCB along with complete. tamper proof SEALING. Facility: 300mm X 450mm X 214mm						
	EACH ⇒ 105.00 × 5400 ⇒ 567000.00 ✓						
19.	Supplying and fixing moulded case circuit breaker (MCCB) over the existing wood/panel board using necessary screws/bolts nuts necessary phase seperators handle and wiring complete. protection of Overload and short circuit with thermal magnetic/micro processor release and earth fault as per IS-13947 (Icu = Ics) Three pole 100amps 25KA						
	EACH ⇒ 105.0 × 4500.0 ⇒ 4,72,500.00 ✓						

M. A. R. 57 (Rule 116) No. E

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work..... 12230

Date	Full description, etc, of work	Number	Dimensions			Contents	Reference to last Measurement
			Length	Breadth	Depth		
1	2	3	4	5	6	7	8
20	Supplying and fixing angle Iron framework fabricated out of MS angle Iron and M.S flat with bolts, washers etc. and painted with 2 coats of red oxide and then two Coats of approved paint 40×40×6mm						
	Mtrs ⇒		105.00	× 252.0 ⇒	26460.00		
21	Supplying ... amps. rated 3phase neutral bus bar Using required. Capacity electrolytic aluminium strips covered with heat shrinkable. Coloured PVC sleeve. mounted on phenolic/FRP/Dmc insulator which are. mounted on powder Coated 40×6mm MS flat framework in existing panelboard the bus bar shall have suitable holes for termination of incoming						
	Mtrs ⇒		31.51	× 2070.0 ⇒	65205.06		

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
22	Supplying and fixing nylum plastic sheet 3mm thick with necessary nitches for fixing switches, regulators etc and fixing on existing wood @ Metal box using N.F Screws.						
			Sqm ⇒ 94500.00 × 0.18 ⇒ 17,010.00 ✓				
23	Supplying and tinned copper lug and Crimping and wiring to terminal point of the following sizes. 25Sqmm long barrel.						
			Each ⇒ 840.0 × 27.0 ⇒ 22,680.00 ✓				
24	Wiring for lighting / power circuit using one of FRLS PVC insulated 1100 grade, multistranded copper wire with low Conductor Resistance Single Core in open @ Concealed system of wiring with specified Is-694 Confirming to lastt amendments. ⇒ 16Sqmm.						
			Mtr ⇒ 525.0 × 198.0 = 1,03,950.00 ✓				

M. A. R. 57 (Rule 116) **No. E**

Measurement Book

Serial No. .....

Name of work ..... From ..... To 12231

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Number	Dimensions			Contents	Reference to last Measurement
			Length	Breadth	Depth		
1	2	3	4	5	6	7	8
25.	Supplying and fixing of 250W/400W high pressure Sodium vapour tubular lamp with Xenon filled gas wall ⓜ Initial lumens of greater than 25000 lumens & Avg rated life greater than 26000 hrs. & minimum starting temperature of (-) 40deg c & Hot restrike time < 60 Sec with CCT 2000K operating voltage range from 180V to 265V. 50Hz AC. Power Supply NO ⇒	200.00	× 1800.0		⇒ 360000.00		
26.	Supplying and fixing & stringing of 1.1kV grade Aerial bunched cable Stranded & compacted Aluminium phase Conductor and Stranded messenger Conductor with all Aluminium alloy, Phase Conductor is insulated with XLPE Compound. insulated messenger with Specified as-14255: 1995 & Conforming to GTP of GroupA. 2×25+1×25 Sq MM. Mtr ⇒	5000.0	× 1980		⇒ 990000.		86.
		4890.0	× 198.0		⇒ 968220.00		

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
27	Supplying and fixing pole clamp for LT.AB.Cable.						
	Set⇒ 165.0 × 324.0 ⇒ 53460.0 ✓						
28	Suspension clamp Assembly 16 to 70 mm (Excluding Pole clamp and eye hook) (material cost + labour charges)						
	Set⇒ 165.0 × 324.0 ⇒ 53460.0 ✓						
29.	Dead End clamp / Anchor clamp Assembly 25 to 95 Sqmm (exclud Pole clamps and Eyehook) (material cost + labour charges)						
	Set⇒ 30.0 × 328.0 ⇒ 9840.00 ✓						
30	Universal Hook, Bolts & nuts including fixing charges (material Cost + labour charges)						
	NO⇒ 165.00 × 441.0 = 72765.00 ✓						

Ok 18

certificate:-

M. A. R. 57 (Rule 116) **No. E**

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

1) Certified that the work done satisfactorily
2) the Bill Amount is claimed in this bill has not been claimed in any of the other previous Bill.

12232

Date	Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Dimensions: Depth	Contents	Reference to last Measurement
1	2	3	4	5	6	7	8
31.	Piercing connector suitable for 16sqmm-95 Sqmm AB cable Street light connections including fixing charges (material Cost + labour charges)						
		NO ⇒	330.0	× 225.0	⇒ 74,250.00		
32	Supplying and fixing ... including all hardware's etc. complete as per the Standard technical specification of BESCOM. RCC Clamp						
		Each ⇒	20.0	× 90.20	⇒ 1804.00		
36	RCC clamp	Each ⇒	20.0	× 90.20	⇒ 1804.00		
37	Relocating and refixing of Sodium vapour / metal halide / LED Street light / Floodlight fittings over the existing pole/wall/ceiling including clamps, nuts and wiring using suitable capacity wires.	Each ⇒	650.0	× 45.0	= 29250		
					Total Cost =		1,18,24,063.00
					(Items 1 to 25) GST 12%		19,00,657.80
					Total Amount =		1,37,24,720.80

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8

13724720.80

Adjustments Details

2% IT 274494-00

CGST 1055992-00

SGST 1055992-00

CBF 13725-00

FSD —

LC 137247-00

FINE —

OTHERS —

TOTAL 636650-00

NETT 13088070-00

Passed for Rs 13724720.80 Only

Nett Cheque Rs 13088070-00 Only

Adjustment Rs 636650-00 Only

Rs in Words one Crore thirty lakhs eighty eight thousand seventy Only.

Accts Supd.
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